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EXAMINER	
WONG, ALLEN C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,809	SANE, ANIRUDDHA	
	Examiner	**Art Unit**	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1/27/04* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/23/08 have been fully read and considered but they are not persuasive.

2. Regarding lines 27-29 on page 1 and lines 11-18 on page 2 of applicant's remarks about claim 1, applicant states that Veltman teaches away from the present invention, and that if Veltman were modified to include "generating a concatenated video data stream" and "decoding the concatenated video data stream", the "video time stamp processing module" would not be able to control "the timing of the decoding of the video stream by the video decoder 45", and would change the principal operation of Veltman. The examiner respectfully disagrees. In response to applicant's argument that Veltman teaches away from the present invention, and that if Veltman were modified to include "generating a concatenated video data stream" and "decoding the concatenated video data stream", the "video time stamp processing module" would not be able to control "the timing of the decoding of the video stream by the video decoder 45", and would change the principal operation of Veltman, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In column 18, lines 1-10, Nagai figure 18 discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image. The output of element 1103 is utilized to affect the image signal reorderer 1119 to produce the display output for viewing. In column 18, lines 45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data. Then Nagai figure 15 discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output, as disclosed in column 20, lines 31-39. Thus, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion, and Nagai meets the deficiencies of Veltman.

Furthermore, both Veltman and Nagai are considered to be in the same analogous art, the video encoding/decoding environment. Thus, the combined teachings of Veltman and Nagai is considered to be reasonable.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a

whole, for accurately, efficiently decoding image data so as to preserve high image quality, as suggested in Nagai's column 5, lines 28-33.

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Dependent claims 2-9, independent claim 10 and dependent claims 11-23 are rejected for at least similar reasons as independent claim 1.

Thus, the rejection is maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 4, 6-11 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veltman (5,481,543) in view of Nagai (5,852,469).

Regarding claim 1, Veltman discloses a method for decoding an encoded video data stream (col.30, ln.5-7 and fig.21, element 4A illustrates a method of decoding), the method comprising:

receiving a first portion of the encoded video data stream and a second portion of the encoded video data stream (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 and the second portion of the

encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream), wherein the first portion and the second portion are parts of one encoded symbol in the encoded video data stream (col.30, ln.21-27, Veltman discloses that both the first portion, ie. video input data, and the second portion, ie. video time stamp, are parts of one encoded symbol or code string of encoded video bitstream received by demultiplexer 44); and

decoding the video data stream (col.30, ln.21-30 and ln.60-61, element 45 is used to decode the video data).

Veltman does not specifically disclose generating a concatenated video data stream comprising the first portion and the second portion. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for

accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 2, Veltman discloses wherein the second portion is sequentially following the first portion in the encoded video data stream (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 and the second portion of the encoded video stream is received in element 52 in that the time stamp data is delayed, thus sequentially following the data received in element 42).

Regarding claim 4, Veltman discloses wherein the receiving further comprises: storing the first portion of the encoded video data stream in a first memory region (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42, wherein demultiplexer 44 receives the encoded video data stream); and storing the second portion of the encoded video data stream in a second memory region (col.30, ln.21-27, Veltman discloses the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream).

Regarding claim 6, Veltman discloses the serial outputting the first portion to the decoder (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 to video decoder 45); reading an address pointer pointing to a sequentially next encoded video data stream in the second memory (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42, and that there are a number of plural sequences of image data

that follow the first GOP, the second GOP, etc.); serially outputting the second portion from the second memory starting with the sequentially next encoded video data stream (col.30, ln.21-27, Veltman discloses the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream); serial outputting the second portion from the second memory starting with the sequentially next encoded video data stream to the decoder (col.30, ln.21-27, Veltman discloses the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream, and that there are a number of plural sequences of image data that follow the first GOP, the second GOP, etc. with corresponding pointers that follow the next sequence of image data).

Veltman does not specifically disclose the concatenator to concatenating the first portion and the second portion in the concatenator; serially outputting the concatenated video data stream to a decoder. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for

viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 7, Veltman does not specifically disclose wherein the first selector selects the amount of encoded data from the second portion to be serially outputted to the concatenator based on the size of the first portion. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing, including the amount of data as needed or desired; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 8, Veltman discloses receiving input from the decoder, the input associated with the size of the decoded video data stream (col.30, ln.21-35, Veltman

discloses the first portion of the encoded video stream is received in element 42 and the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream, and that the size of the decoded video data is obtained).

Regarding claim 9, Veltman discloses wherein the input determines the amount of video data stream to be serially outputted to the decoder (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 to video decoder 45). Veltman does not specifically disclose the concatenated video data stream. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 10, Veltman discloses a system for decoding an encoded video data stream (col.30, ln.5-7 and fig.21, element 4A illustrates a system for decoding), the data stream comprising a plurality of encoded symbols and a plurality of end indicators (col.28, ln.39-59 and in fig.20, there are clear separated sections of GOPs in the 1 or more video packets section, and in the 1st directory packet section, there are plural pointers used to point to the corresponding GOP), the end indicators for separating portions of the encoded video data stream (col.28, ln.39-59, in fig.20, there are end indicators for the GOPs to differentiate the GOP1-GOP9), the system comprising:

a first memory buffer for receiving a first portion of the encoded video data stream (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42, wherein demultiplexer 44 receives the encoded video data stream);

a second memory buffer for receiving a second portion of the encoded video data stream (col.30, ln.21-27, Veltman discloses the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream); and

a decoder for decoding the concatenated video data stream (col.30, ln.21-30 and ln.60-61, element 45 is used to decode the video data).

Veltman does not specifically disclose a concatenator for concatenating the first portion and the second portion to obtain a concatenated video data stream. However, Nagai discloses the generation of concatenating video data stream comprising the first

portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 11, Veltman discloses wherein the first portion and the second portion are part of the same encoded symbol (col.30, ln.21-27, Veltman discloses that both the first portion, ie. video input data, and the second portion, ie. video time stamp, are parts of one encoded symbol or code string of encoded video bitstream received by demultiplexer 44).

Regarding claim 18, Veltman discloses the selector memory, the selector memory adapted to receive a selection of encoded video data stream from the second portion (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42, and that there are a number of plural sequences of image data that follow the first GOP, the second GOP, etc.); and a selector, the

selector adapted to serially output the selection of encoded video data stream from the second portion to the decoder (col.30, ln.21-27, Veltman discloses the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream). Veltman does not specifically disclose a concatenator for concatenating the first portion and the second portion to obtain a concatenated video data stream. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 19, Veltman discloses wherein the first memory region is adapted to sequentially output the first portion to the decoder (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 to

video decoder 45). Veltman does not specifically disclose a concatenator for concatenating the first portion and the second portion to obtain a concatenated video data stream. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 20, Veltman does not specifically disclose wherein the concatenator is adapted to receive the second portion after receiving the first portion. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18,

ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 21, Veltman does not specifically disclose further comprising: a selector memory, the selector memory adapted to receive a selection of the concatenated video data stream from the concatenator; and a selector, the selector adapted to serially output the selection of concatenated video data stream to the decoder. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and lower layer is reunited for viewing at the display output). Therefore, it would have been

obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

Regarding claim 22, Veltman discloses wherein the decoder provides input, the input associated with the size of the decoded video data stream (col.30, ln.21-35, Veltman discloses the first portion of the encoded video stream is received in element 42 and the second portion of the encoded video stream is received in element 52, wherein demultiplexer 44 receives the encoded video data stream, and that the size of the decoded video data is obtained).

Regarding claim 23, Veltman discloses wherein the input determines the amount of video data stream to be serially outputted to the decoder (col.30, ln.21-27, Veltman discloses the first portion of the encoded video stream is received in element 42 to video decoder 45). Veltman does not specifically disclose the concatenated video data stream. However, Nagai discloses the generation of concatenating video data stream comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region reordering table 1103 for reordering regions of the encoded image data for display as one whole image, and the output of element 1103 is used to influence the image signal reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7 shows the encoding of image data by splitting the regions of the image data and later when decoding the image data in fig.18, the upper layer and

lower layer is reunited for viewing at the display output). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman and Nagai, as a whole, for accurately, efficiently decoding image data so as to preserve high image quality (Nagai col.5, ln.28-33).

3. Claims 3, 5 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veltman (5,481,543) and Nagai (5,852,469) in view of Hashizume (6,259,639).

Regarding claims 3 and 12, Veltman and Nagai do not specifically disclose wherein the second portion is not sequentially following the first portion in the encoded video data stream. However, Hashizume teaches the use of storing in the second memory region is performed upon determining that the first memory region is full, thus, the second portion is not sequentially following the first portion (col.25, ln.66 to col.26, ln.5, note that since if the memory in the first memory block 40 is full, then the data is then transferred to memory block 41, thus not sequentially following the first portion). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman, Nagai and Hashizume, as a whole, for applying the concepts of memory management for properly allocating data to available storage so as to prevent the loss of vital image information.

Regarding claims 5 and 13, Veltman and Nagai do not specifically disclose wherein the storing in the second memory region is performed upon determining that the first memory region is full. However, Hashizume teaches the storing in the second

memory region is performed upon determining that the first memory region is full (col.25, ln.66 to col.26, ln.5). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman, Nagai and Hashizume, as a whole, for applying the concepts of memory management for properly allocating data to available storage so as to prevent the loss of vital image information.

Regarding claim 14, Veltman and Nagai do not specifically disclose wherein the second memory buffer is configured to receive the second portion after the first memory buffer receives an end indicator after receiving a portion of the encoded video data stream. However, Hashizume teaches the storing in the second memory region is performed upon determining that the first memory region is full, thus, the second memory buffer is configured to receive the second portion after the first memory buffer receives the flag/indicator (col.25, ln.66 to col.26, ln.5, note that since the full flag signal from first memory block is asserted, the second memory buffer is ready to receive data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman, Nagai and Hashizume, as a whole, for applying the concepts of memory management for properly allocating data to available storage so as to prevent the loss of vital image information.

Regarding claim 15, Veltman discloses the tracking of the data size information (fig.22, note “video input buffer size” and “video t/s buffer size” is tracked). Veltman and Nagai do not specifically disclose wherein the first memory buffer is configured to save at least one of an indicator flag, the indicator flag having an active state and an inactive state. However, Hashizume teaches the storing in the second memory region

is performed upon determining that the first memory region is full, thus, the second memory buffer is configured to receive the second portion after the first memory buffer receives the flag/indicator (col.25, ln.66 to col.26, ln.5, note that since the full flag signal from first memory block 40 is asserted, the second memory buffer is ready to receive data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman, Nagai and Hashizume, as a whole, for applying the concepts of memory management for properly allocating data to available storage so as to prevent the loss of vital image information.

Regarding claim 16, Veltman and Nagai do not specifically disclose wherein the indicator flag is activated if the first memory buffer is full. However, Hashizume teaches wherein the indicator flag is activated if the first memory buffer is full (col.25, ln.66 to col.26, ln.5; if the data is full in first memory block 40, then the full flag signal from the first memory block is activated). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Veltman, Nagai and Hashizume, as a whole, for applying the concepts of memory management for properly allocating data to available storage so as to prevent the loss of vital image information.

Regarding claim 17, Veltman discloses wherein the data size information comprises a data size of the second portion (fig.22, note the data size information is tracked as indicated by "video t/s buffer size" is tracked).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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